

- 1 1. A microcontroller, comprising:
2 a circuit comprising at least one of an analog circuit and a digital circuit;
3 a wirebond pad;
4 a processor;
5 a switching circuit that selectively connects the circuit to the wirebond pad
6 under control of the processor.
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8 2. The apparatus according to claim 1, wherein the analog circuit comprises
9 a configurable analog circuit block.
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11 3. The apparatus according to claim 1, wherein the digital circuit comprises a
12 configurable digital circuit block.
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14 4. The apparatus according to claim 1, wherein the analog circuit comprises
15 an analog input and an analog output and wherein the switching circuit selectively
16 connects one of the analog input and the analog output to the wirebond pad under
17 control of the processor.
18
19 5. The apparatus according to claim 1, wherein the digital circuit comprises a
20 digital input and a digital output and wherein the switching circuit selectively
21 connects one of the digital input and the digital output to the wirebond pad under
22 control of the processor.
23
24 6. The apparatus according to claim 1, wherein the analog circuit comprises
25 an analog input and an analog output and wherein the digital circuit comprises a
26 digital input and a digital output and wherein the switching circuit selectively
27 connects at least one of the analog input, the analog output, the digital input and
28 the digital output to the wirebond pad under control of the processor.
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1 7. The apparatus according to claim 6, wherein the switching circuit comprises
2 a tristate analog buffer amplifier coupling the analog output to the wirebond pad,
3 and wherein the analog output is switched by tristate control of the tristate analog
4 buffer amplifier.

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6 8. The apparatus according to claim 6, wherein the switching circuit comprises
7 an analog buffer amplifier in series with an analog switch coupling the analog
8 output to the wirebond pad, and wherein the analog output is switched by the
9 analog switch.

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11 9. The apparatus according to claim 6, wherein the switching circuit comprises
12 an analog switch coupling the analog output to the wirebond pad, and wherein the
13 analog output is switched by the analog switch.

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15 10. The apparatus according to claim 6, wherein the switching circuit comprises
16 an analog switch coupling the analog input to the wirebond pad, and wherein the
17 analog input is switched by the analog switch.

18
19 11. The apparatus according to claim 6, wherein the switching circuit comprises
20 a tristate analog buffer amplifier coupling the analog input to the wirebond pad, and
21 wherein the analog input is switched by tristate control of the tristate analog buffer
22 amplifier.

23
24 12. The apparatus according to claim 6, wherein the switching circuit comprises
25 a tristate logic gate coupling the digital output to the wirebond pad, and wherein the
26 digital output is switched by tristate control of the tristate logic gate.

27
28 13. The apparatus according to claim 12, wherein the tristate logic gate
29 comprises an inverter.
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1 14. The apparatus according to claim 12, wherein the tristate logic gate
2 comprises a buffer.
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4 15. The apparatus according to claim 6, wherein the switching circuit comprises
5 a multiple input logic gate coupling the digital output to the wirebond pad, and
6 wherein the digital output is switched by an input to the multiple input logic gate.
7

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9 16. The apparatus according to claim 15, wherein the multiple input logic gate
10 comprises a NAND gate.
11

12 17. The apparatus according to claim 6, wherein the switching circuit comprises
13 a tristate logic gate coupling the digital input to the wirebond pad, and wherein the
14 digital input is switched by tristate control of the tristate logic gate.
15

16 18. The apparatus according to claim 17, wherein the tristate logic gate
17 comprises an inverter.
18

19 19. The apparatus according to claim 17, wherein the tristate logic gate
20 comprises a buffer.
21

22 20. The apparatus according to claim 6, wherein the switching circuit comprises
23 a multiple input logic gate coupling the digital output to the wirebond pad, and
24 wherein the digital input is switched by an input to the multiple input logic gate.
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27 21. The apparatus according to claim 20, wherein the multiple input logic gate
28 comprises a NAND gate.
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1 22. The apparatus according to claim 6, wherein the switching circuit comprises
2 an isolation resistor isolating the wirebond pad from one of a digital input, an
3 analog input and analog output.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100